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MICHAEL L. DUNN			PARVINI, PEGAH	
SIMPSON & SIMPSON, PLLC			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/557,620	Applicant(s) ASENDORF ET AL.
	Examiner PEGAH PARVINI	Art Unit 1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 July 2009.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 14 and 27-48 is/are pending in the application.
 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 27-31,33,36-40 and 42-48 is/are rejected.
 7) Claim(s) 31,32,34-36,40, 41 and 45-48 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Election/Restrictions

Applicants' election and argument drawn to method claim 14 in the reply filed on July 15, 2009 is acknowledged. The traversal is on the ground(s) that if there is an express admission that the claimed inventions would have been obvious over each other within the meaning of 35 U.S.C. 103, restriction should not be required. This is not found persuasive because claim 14 is drawn to a method for sealing a soil based construction; whereas, the claims as originally presented were drawn to a mixture comprising soil and an additive as detailed out in claims 27 and 36 and previous (and originally presented) claim 1. Considering the fact that Applicants have received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits, and thus, claim 14 (i.e. method of using the composition/mixture) is withdrawn from consideration as being directed to a non-elected invention. See MPEP § 821.03. The restriction was proper and stands.

The requirement is still deemed proper and is therefore made FINAL. Claim 14 is withdrawn from further consideration.

Response to Amendment

This Office action is in response to the amendment submitted July 15, 2009. After entry of the amendment, claims 1-13 and 15-26 are canceled, claim 14 is withdrawn, and new claims 27-48 have been added.

New claims 27-31, 33, 36-40, 42-48 are rejected, and, further, new claims 31-32, 34-36, 40-41 and 45-48 are objected.

Applicants' amendment to the specification is acknowledged.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because "A method of sealing construction" is a fragment/incomplete sentence. Furthermore, the "means" phrase should be avoided. Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 31, 40, and 45-48 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claims 31 and 40, said claims recite that the additive is a polymeric methacrylamide which is recited as the additive in claims 27 and 36 (the independent claims from which claims 31 and 40 are dependent).

Regarding claims 45-48, said claims depend on claim 36, and claim 36 appears to be a composition claim; however, claims 45-48 are drawn to either the process of applying the composition of claim 36 or to the structure of the construction onto which the composition of claim 36 would be applied on. In short, they do not further limit the composition of claim 36.

Claims 32 and 36 are objected to because of the following informalities: regarding claim 32, a period is missing after the claim number, "32"; regarding claim 36, there are two periods at the end of the recitation of claim: "the additive..". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 31, 37-40, and 42-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 31 and 40, the recitations of said claims are confusing considering the fact that the independent claims 27 and 36 already recite that the additive is polymeric methacrylamide. Clarification is requested.

Regarding claims 37-39 and 42-48, said claim recites the limitation "the means for sealing" in the first or second line of the language of those claims. There is insufficient antecedent basis for this limitation in the claim.

The independent claim 36 recites "a flexible sealing means"; Applicants are recommended to amend said claims to change "the means for sealing" to "sealing means" to overcome this rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-31, 33, 36-40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,340,385 to Wammes.

Wammes teaches a clay containing mixture comprising three different sand fractions in which all contain bentonite (i.e. clay), and acrylic acid-acrylamide copolymer wherein said copolymer is added in an amount of 0.3g which is almost 0.25% by weight of the total composition (Example, column 4). The reference, further, suggests that said mixture is used for sealing purposes and forming a moisture resistance composition

(column 1, lines 12-16; column 4, lines 34-38). With reference to the amount of the polymer in volume percent, it is noted that the reference discloses a very small amount of said component which considering the very small volume percent of this component as claimed in claim 27, 30, 36 and 39, the 0.25% by weight, once converted to volume percent, is expected to have an overlapping portion with the amounts of said component in volume percent absence evidence to the contrary.

It is apparent from the definition provided for argillaceous by applicants that said compound may be mineral clay; therefore, the disclosure of Wammes on the use of clay is seen to read on the limitation of argillaceous of claims 28 and 37 absence evidence proving the contrary.

The disclosure of Wammes on an amount of 70% by weight of coarse sand fraction which comprises 15% by weight of free bentonite and 15% by weight of medium sand fraction which comprises about 80% by weight of free bentonite are seen to read on the limitation of the content of at least 10% by weight of clay as recited in claims 33 and 42.

It is to be noted that overlapping ranges have been held to establish *prima facie* obviousness. MPEP § 2144.05.

It is noted that "A means for flexible sealing of construction" is in the preamble. The recitations in the preamble do not further limit the scope of the claim unless they result in a structural difference. MPEP § 2111.02.

With reference to the recitation of claims 27 and 36 drawn to "additive opens a water casing around soil grains", it is to be noted that since the reference teaches a

substantially similar composition as that recited in instant claims 27 and 36, said characteristic is expected to follow from the mixture/composition of the reference absence evidence proving the contrary.

Claims 27-31, 33, 36-40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,964,918 to Brown et al.

Brown et al. teach a composition for sealing a borehole, subgrade foundation structure and other cavities (Abstract; column 2, lines 27-30). Brown et al. disclose that said composition comprises a water swellable clay such as bentonite (i.e. clay) and 0.1-10% of a thinner such as certain low molecular weight polyacrylate polymers (column 1, lines 56-61; column 2, lines 40-45; column 3, lines 44-46). With reference to the amount of the polymer in volume percent, it is noted that the reference discloses a range of 0.1-10% of the polymer which is expected to have overlapping ranges with the amount instantly claimed once converted to volume percent considering the small amount of said component as claimed in volume percent in claim 1 absence evidence to the contrary.

It is apparent from the definition provided for argillaceous by applicants that said compound may be mineral clay; thus, the disclosure of Brown et al. on the use of clay is seen to read on the limitation of argillaceous of claims 28 and 37 absence evidence proving the contrary.

The disclosure of Brown et al. on the use of an amount of 98-99.9% of sodium bentonite is seen to read on the limitation of the content of at least 10% by weight of clay as recited in claims 33 and 42.

It is to be noted that overlapping ranges have been held to establish *prima facie* obviousness. MPEP § 2144.05.

It is noted that "A means for flexible sealing of construction" is in the preamble. The recitations in the preamble do not further limit the scope of the claim unless they result in a structural difference. MPEP § 2111.02.

With reference to the recitation of claims 27 and 36 drawn to "additive opens a water casing around soil grains", it is to be noted that since the reference teaches a substantially similar composition as that recited in instant claims 27 and 36, said characteristic is expected to follow from the mixture/composition of the reference absence evidence proving the contrary.

Claims 27, 30-31, 36, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 2,754,623 to Mowry et al.

Mowry et al. teach a method of preventing natural erosion of earth surface by water and wind in which comprises using a composition comprising a water-soluble polymer such as methacrylamide in an amount of as little as 0.1 pound per hundred square feet and as high as five pounds per hundred square feet in soil (column 1; column 2, lines 18-36; claim 1).

It is noted that "A means for flexible sealing of construction" is in the preamble. The recitations in the preamble do not further limit the scope of the claim unless they result in a structural difference. MPEP § 2111.02.

With reference to the amount of the polymer in volume percent based on the "m³" unit, it is noted that the reference discloses a very small amount of said component which considering the very small volume percent of this component as claimed in claim 27, 30, 36 and 39, once converted to volume percent based on "m³", it is expected to have an overlapping portion with the amounts of said component in those claims absence evidence to the contrary.

It is to be noted that overlapping ranges have been held to establish *prima facie* obviousness. MPEP § 2144.05.

With reference to the recitation of claims 27 and 36 drawn to "additive opens a water casing around soil grains", it is to be noted that since the reference teaches a substantially similar composition as that recited in instant claims 27 and 36, said characteristic is expected to follow from the mixture/composition of the reference absence evidence proving the contrary.

Claims 27, 30-31, 36, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 408041460 A to Mori.

Mori teaches a material comprising soil and a water-soluble polymer such as methacrylamide in an amount of preferably 0.02-0.5wt% based the soil (Abstract).

It is noted that "A means for flexible sealing of construction" is in the preamble. The recitations in the preamble do not further limit the scope of the claim unless they result in a structural difference. MPEP § 2111.02.

With reference to the amount of the polymer in volume percent, it is noted that the reference discloses a range of 0.02-0.5wt% of the polymer based on the soil; this amount is expected to have overlapping ranges with the amount of polymer in volume percent instantly claimed once converted into volume percent considering the small amount of polymer disclosed by the reference and claimed in claim 1 absence evidence to the contrary.

It is to be noted that overlapping ranges have been held to establish *prima facie* obviousness. MPEP § 2144.05.

With reference to the recitation of claims 27 and 36 drawn to "additive opens a water casing around soil grains", it is to be noted that since the reference teaches a substantially similar composition as that recited in instant claims 27 and 36, said characteristic is expected to follow from the mixture/composition of the reference absence evidence proving the contrary.

Response to Arguments

Applicant's arguments filed July 15, 2009 have been fully considered but they are not persuasive.

Applicants have argued that Wammes or Brown et al. do not teach or suggest the presently claimed invention. More specifically, Applicants have argued that Wammes have a water matrix which is exactly contrary to the highly consolidated

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material used in the present invention where water surrounding soil particles is broken apart. Applicants, then, further argue that this is similarly true for Brown et al.

The Examiner disagrees, and respectfully, submits that based on the recitation of instant claims, the invention is drawn to a composition/mixture comprising soil and a polymeric methacrylamide as additive in certain amount. The references, each individually, teach a substantially similar composition; therefore, the characteristic of "additive opens a water casing around soil grains..." is expected to follow from the composition of the references individually absence clear evidence showing the contrary.

Allowable Subject Matter

Claims 32 and 43-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if they would be amended in a way to overcome 112-second paragraph rejection as presented herein above without broadening the scope of the claims or inserting new limitation.

Claims 34-35 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art do not suggest or disclose 15 kg to 25 kg of cement and/or lime in

the composition of claims 27 and/or 36 (a mixture of soil and polymeric additive comprising polymeric methacrylamide in an amount of up to 0.5% by volume) wherein said cement or lime contains 1% by weight to 10% by weight of the additive.

Furthermore, the prior art do not teach or disclose a water content of 20% by weight to 50% by weight in the mixture. Additionally, the prior art do not disclose the use of saponified paraffin in a mixture of soil and polymeric methacrylamide in an amount of 0.5% by volume in 1 m³.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEGAH PARVINI whose telephone number is (571)272-2639. The examiner can normally be reached on Monday to Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pegah Parvini/
Examiner, Art Unit 1793

/Anthony J Green/
Primary Examiner, Art Unit 1793